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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,078	04/02/2004	Brendan Doorhy	27726-95741	2149

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EXAMINER

FITZGERALD, JOHN P

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/817,078	Applicant(s) DOORHY ET AL.	
	Examiner John P Fitzgerald	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-20 is/are allowed.
- 6) ☒ Claim(s) 21-36 and 38-41 is/are rejected.
- 7) ☒ Claim(s) 1-8 and 37 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>04/02/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim ^{5 1-2 are} 1 is objected to because of the following informalities: a letter "T" appears at the end of line 3. Replace the first occurrence of "and" with "in" in line 3. Replace "value" with "valve" at the conclusion of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 26, 27, 33 and 40 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 26 recites the limitation "the freshness timer" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 33 recites the limitation "the user" in line 4. There is insufficient antecedent basis for this limitation in the claim. Claim 40 recites the limitation "the microprocessor" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

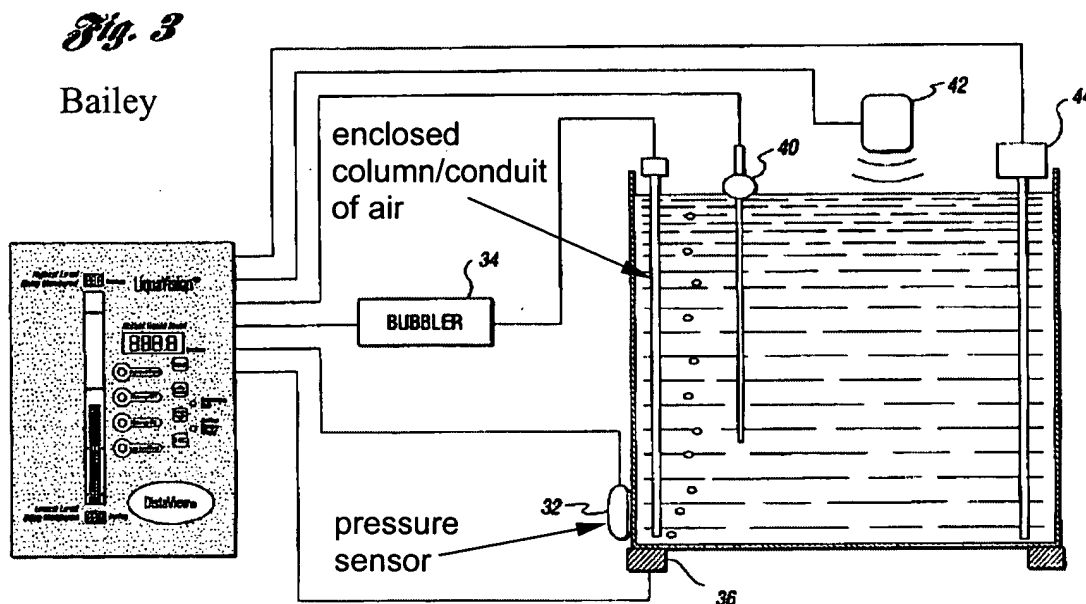
A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 21 is rejected under 35 U.S.C. § 102(b) as being anticipated by US 5,705,747 to Bailey. Bailey discloses a method of providing an indication of the level in a beverage dispenser (container, storage tank, vessel or equivalents) (Figs. 1-8d) including providing a pressure sensor (32) placed to sense pressure generated by the beverage (i.e. liquid level or equivalent); providing means (a microcontroller (52)) to electrically connect (i.e. receive signals) the pressure sensor to a display/user interface (50) for presenting indicia (Fig 4) related to the level (i.e. process the received signals) of the beverage/liquid and to drive the display; the microcontroller capable of connecting/disconnecting/controlling various elements, such as sensors, switches, LEDs and alarms in order to regulate the level of the liquid/beverage (Bailey: col. 3, lines 11-67); calibrating the microcontroller for particular size beverage container/tank by creating "level set-points (90, 92, 94); and when the liquid/beverage is dispensed (i.e. liquid level drops/lowers), the indicia displayed decrements accordingly which is inherently proportional to the flow rate of the liquid/beverage including the employment of an alarm.

5. Claim 25 is rejected under 35 U.S.C. § 102(b) as being anticipated by US 5,705,747 to Bailey. Bailey discloses a method of providing an indication of the level in a beverage dispenser (container, storage tank, vessel or equivalents) (Figs. 1-8d) including placing an enclosed column of air (bubbler (34)) in communication with the beverage/liquid in the dispenser so as to place air under pressure of the beverage/liquid; placing a pressure sensor in communication with the column of air, the sensor producing a signal related to the air pressure (Bailey: col. 3, lines 5-10); and communicating the signal to a display (see Fig. 3 below), the display indicating the level of fluid in the dispenser.



6. Claims 30-32 are rejected under 35 U.S.C. § 102(b) as being anticipated by US 5,705,747 to Bailey. Bailey discloses a method of providing an indication of the level in a beverage dispenser (container, storage tank, vessel or equivalents) (Figs. 1-8d) including providing a pressure sensor (32) placed to sense pressure generated by the beverage (i.e. liquid level or equivalent); providing a microcontroller (52) to electrically connect the pressure sensor to a display/user interface (50) for presenting indicia (Fig 4) related to the level of the beverage/liquid and to drive the display; and providing a source of electric power to the microcontroller (Bailey: col. 6, line 66 to col. 7, line 17); the microcontroller capable of connecting/disconnecting/controlling various elements, such as sensors, switches, LEDs and alarms in order to regulate the level of the liquid/beverage (Bailey: col. 3, lines 11-67); calibrating the microcontroller for particular size beverage container/tank by creating "level set-points (90, 92, 94); and when the liquid/beverage is dispensed (i.e. liquid level drops/lowers), the

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indicia displayed decrements accordingly which is inherently proportional to the flow rate of the liquid/beverage.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 22-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 5,705,747 to Bailey as applied to claim 21 above, and further in view of US 5,375,508 to Knepler et al. Bailey discloses a method of providing an indication of beverage level in a beverage dispenser including all of the elements and method steps stated previously, including the employment of a pressure sensor sensing the pressure of the liquid/beverage and sending output signals to a programmable microcontroller; including calibrating upper/lower limit/thresholds activating re-filling of the dispenser. Bailey does not expressly disclose the method step of setting an expiration period via a freshness timer, appearing on the display and the indication is an audio signal. Knepler et al. teach a beverage dispenser/container (Figs. 1-4) having a programmable controller with a freshness timer as well as many other types of programmable controls (see "Control Function List") leading to indicia (78). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a freshness timer and any associated programmable steps regarding the timer, as taught by Knepler et al., modifying the method disclosed by Bailey, thus providing a limitation to the time the beverage/liquid is kept/stored thus maintaining a desired taste and consistency (Knepler et al.:

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col. 2, lines 25-31). Lastly, an audio alarm is considered to be an obvious variant to a visual indication alarm, or any other type of alarm to be employed is considered a design choice well within the purview of one having ordinary skill in the art.

9. Claims 26-29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 5,705,747 to Bailey as applied to claim 25 above, and further in view of US 5,375,508 to Knepler et al. Bailey discloses a method of providing an indication of beverage level in a beverage dispenser including all of the elements and method steps stated previously, including the employment of a pressure sensor sensing the pressure of the liquid/beverage and sending output signals to a programmable microcontroller; including calibrating upper/lower limit/thresholds activating re-filling of the dispenser as well as the other types of sensing devices that can be employed (Bailey: col. 3, lines 1-4) and flow rate sensors/timers are well within the design purview of one of ordinary skill in the art. Bailey does not expressly disclose the method step of resetting a freshness timer if the dispenser received additional liquid/beverage, providing indicia when the freshness timer expires; and employing a flow rate timer which indicates a decrease in the displayed indicia being related to the time the beverage is dispensed. Knepler et al. teach a beverage dispenser/container (Figs. 1-4) having a programmable controller with a freshness timer as well as many other types of programmable controls (see "Control Function List") leading to indicia (78). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a freshness timer and any associated programmable steps regarding the timer, as taught by Knepler et al., modifying the method disclosed by Bailey, thus providing a limitation to the time the beverage/liquid is kept/stored thus maintaining a desired taste and consistency (Knepler et al.: col. 2, lines 25-31).

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10. Claim 33 is rejected under 35 U.S.C. § 103(a) as being unpatentable over US 5,705,747 to Bailey. Bailey discloses a method of providing an indication of beverage level in a beverage dispenser including all of the elements and method steps stated previously, including the employment of a pressure sensor sensing the pressure of the liquid/beverage and sending output signals to a programmable microcontroller. Bailey does not expressly disclose the method step of determining if the pressure sensed by the pressure sensor has increased during a predetermined time; and displaying indicia to the user if the pressure has not increased. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ any type of programmable method step in processing a response to a particular sensed pressure by the pressure sensor and display or not display any indicia to the user based on design choice, and well within the purview of one of ordinary skill.

11. Claims 34-36 and 38-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 5,705,747 to Bailey and US 5,375,508 to Knepler et al. Bailey discloses an apparatus (Figs. 1-8a) for displaying the level of fluid in a beverage dispenser including a voltage source (Bailey: col. 7, lines 103) (note: a battery is an obvious form of a voltage source); a voltage regulator (i.e. transformer (T1) to provide power to a microcontroller (52); a display (see Fig. 4); a pressure sensor (32, 34) electrically connected to the microcontroller, the sensor providing a signal related to the pressure sensed by the sensor; and a conduit (column of air) (see Fig. 3 above) in fluid communication with the beverage/liquid to be dispensed, the pressure sensor operably connected to the conduit so as to sense the pressure therein (as recited in claim 34); whereby the microprocessor monitors the signal from the pressure sensor, and upon detecting a decrease in pressure sensed by the pressure sensor, sends a signal to the display changing indicia (as recited

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in claim 40); employment of operational amplifiers (op-amps) (see Fig. 7A), analog to digital converters to process the signal (Bailey: col. 3, lines 37-43) (note: employment of A/D converters are well known in the employment of converting analog electrical signals to digital signals employable by microprocessors). Bailey does not expressly disclose the employment of a re-settable or freshness timers, or timers to decrement the level displayed. Knepler et al. teach a beverage dispenser/container (Figs. 1-4) having a programmable controller with a freshness timer as well as many other types of programmable controls (see "Control Function List") leading to indicia (78). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a freshness timer and any associated programmable steps regarding the timer, as taught by Knepler et al., modifying the method disclosed by Bailey, thus providing a limitation to the time the beverage/liquid is kept/stored thus maintaining a desired taste and consistency (Knepler et al.: col. 2, lines 25-31), as well as the subsequent change in the display based upon any change of pressure sensed by the pressure sensor.

Allowable Subject Matter


12. Claims 8-20 allowed over the Prior Art of record.
13. Claim 1-8 are objected to, but would be allowable if objections are overcome
14. Claim 37 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lassota, Hengner et al., Klug et al., Briefer et al., Rader et al., Seidel et al., Marsh et al., Jaulmes, Reese et al., Messing and Maclachlan all teach various aspects of the instant invention..

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fitzgerald whose telephone number is (571) 272-2843. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JF

12/23/2004


DANIEL S. LARKIN
PRIMARY EXAMINER